



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/530,814

10/05/2006

Henri Drean

5637

4412

26936 7590 03/02/2011  
SHOEMAKER AND MATTARE, LTD  
10 POST OFFICE ROAD - SUITE 100  
SILVER SPRING, MD 20910

EXAMINER

ALEMU, EPHREM

ART UNIT

PAPER NUMBER

2821

MAIL DATE

DELIVERY MODE

03/02/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,814	<b>Applicant(s)</b> DREAN, HENRI	
	<b>Examiner</b> Ephrem Alemu	<b>Art Unit</b> 2821	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 35-41 and 43-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35-41 and 43-52 is/are allowed.
- 6) ☒ Claim(s) 53-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Claim Objections**

1. Claims 35 and are objected to because of the following informalities:

In claim 35, line 5, “the vector” should be replaced with --a vector--;

line 6, “the contamination” should be replaced with --a contamination--;

line 8, “the plasma” should be replaced with --a plasma--; and/or corrected appropriately to correct lack of antecedent basis. Appropriate correction is required.

### **Claim Rejections - 35 USC § 102**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishii et al. (US 5,795,429).

Re claim 53, Ishii discloses a method of operating a plasma-generating device for treatment of a gaseous medium, comprising the steps of:

(i) creating a standing magnetic field (corresponds to an alternating magnetic field B, Fig. 2);

(ii) creating a plasma in the presence of the standing magnetic field (Col. 7, lines 12-18, “...to form a plasma.”); (iii) creating at least one first variable electrical field in the plasma (refer to the “E” on the left of the chamber in Fig. 2);

Art Unit: 2821

(iv) creating at least one second electrical field in the plasma (refer to the “E” on the right of the chamber in Fig. 2), and

(v) applying at least one electrical signal (power supply 28) for controlling the value of the standing magnetic field (Fig. 2).

Re claim 54, Ishii further discloses the electrical signal is chosen from the group consisting of alternating voltage being supplied at least one pair of electrodes, the current, or combinations thereof (refer to the power supply in Fig. 2).

Re claim 55, Ishii discloses a plasma generating device for treatment of a gaseous medium, comprising:

(i) a gaseous medium confinement chamber comprising at least one treatment chamber (10) (Fig. 2);

(ii) a means for generating a first magnetic field (the B field on the left) (Fig. 2);

(iii) a means for generating a second magnetic field in the treatment chamber (the B field on the right) (Fig. 2);

(iv) a means for emitting an electromagnetic signal (18) in the gaseous medium of the treatment chamber (Fig. 2);

(v) a means for generating a first electric field (E field on the left of Fig. 2);

(vi) a means for generating at least one or more second electrical fields (E field on the right of Fig. 2), and (vii) a powering system (28 connected to controller 38) controlling the value of the first and second magnetic fields (Fig. 2).

#### **Allowable Subject Matter**

4. Claim 35-40 and 43-52 are allowed.

### **Response to Arguments**

5. Applicant's arguments with respect to the new claims 53-55 have been considered but are moot in view of the new grounds of rejection.

### **Conclusion**

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### **Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacob Y Choi can be reached on (571) 272-2367. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2821

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EA  
02/26/2011

/Jacob Y Choi/  
Supervisory Patent Examiner, Art Unit 2821